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ABSTRACT

This study examined the professional role interests and satisfactions of tenure track women and minority faculty (N=146) at a Research I university from three schools on campus: Arts and Sciences, Business, and Education. The sample was comprised of 42 white male faculty, 47 minority faculty, and 57 white female faculty. Subjects were interviewed and administered a career development questionnaire to determine how well their interests and satisfactions "fit" institutional values and expectations. Among the findings were the following: (1) no evidence could be found of a professional bias towards service activities or of less personal commitment to research by female and minority academics; (2) minorities tended to demonstrate a greater identification with and satisfaction from teaching than other groups of faculty, but did not spend more time on teaching or in service activities; and (3) minorities perceived a burdensome service load compared with other groups. Satisfaction with teaching and research proved most predictive of important aspects of institutional fit. Also, data revealed that race and gender affect the amount of faculty support received, independent of whether personal and professional goals fit within the institutional values and norms. Control over one's career and the intrinsic satisfactions of academic work directly influenced perceived job satisfaction. Contains 46 references. (GLR)

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Women and Minority Faculty Job Satisfaction: A Structural Model Examining the Effect of Professional Role Interests, Professional Satisfactions, and Institutional Fit

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ASSOCIATION FOR THE STUDY OF HIGHER EDUCATION

This paper was presented at the annual meeting of the Association for the Study of Higher Education held at the Park Plaza Hotel & Towers in Boston, Massachusetts, October 31-November 3, 1991. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

Demographic predictions of an increasingly female- and minority-based workforce have reinvigorated interest within the academy in recruiting qualified women and minority members into its professional ranks. According to the Hudson Institute (Johnston, 1987) as many as 80% of the new entrants into the labor force over the next decade will be women and minorities. Such statistics have particular relevance for higher education where the pool of faculty applicants appears to be shrinking while the demand for new faculty grows (Bowen & Schuster, 1986). Not since the 1960's have colleges and universities focused so much attention on establishing a faculty that reflects the "diversity" of our national population.

By and large, however, enthusiasm for increasing the number of women and minorities on our campuses has outstripped our understanding of the experience of these traditionally underrepresented groups in academe. Demographic data indicates that the majority of women and minority faculty are concentrated at less prestigious, two and four year colleges and at the lower end of the faculty ranks (or in nontenure-track positions) (AASCU, 1988; Etaugh, 1984; Exum, 1983; Lomperis, 1990; Reed, 1986). Unfortunately, information which might help us to understand the demographic patterns found is incomplete. We need to know more about the institutional factors, as well as the personal and professional proclivities, needs, and interests, that determine women and minorities participation in higher education--and ultimately their success in and satisfaction with the academic world. In particular, assumptions about how women and minority faculty function and, wish to function, may prove as damaging to their professional growth and development within academic community as present discrimination and insensitivity.

Faculty Role Interests, Satisfactions, and Allocation of Work Time

To the extent that the existing literature begins to sketch a coherent portrayal of women and minority faculty, the picture which emerges is not necessarily the most promising one. Data suggest lower research productivity, a heavy teaching orientation and substantial commitment to institutional service (Carnegie Foundation, 1990, Finkelstein, 1984; Justus, Freitag & Parker, 1987; Menges & Exum, 1983; Silver, Dennis & Spikes, 1988; Simeone, 1987). Female and especially minority academics' greater involvement in service has been explained as a product of a mutual desire on the part of the university and these traditionally underrepresented individuals to further the goals of diversity on campus (Blackwell, 1988; Exum, 1983). Moreover, because of their commitment to the values of community and to the intellectual and social development of their students, female and minority faculty are reported to invest more time and energy in their teaching and to derive more satisfaction from it (Blackwell, 1988, Justus et al., 1987, Finkelstein, 1984). Finally, it has been argued, that women's and minority's productivity suffers from the more acute work/family and work/community conflicts experienced by these groups (Justus et al. 1987, Rausch, Ortiz, Douthitt & Reed, 1989; Thomas & Alderfer, 1989). Given what Bowen and Schuster (1986, p. 147) describe as the current "publishing obsession", the emerging professional profile of women and minority faculty, if true, thus suggests they are less attuned to, and less likely to receive, institutional rewards and recognition based on scholarly productivity.

Problems with Current Portrayals of Women and Minority Faculty

One problem in interpreting much of the available data is the confound between gender/racial status and institutional affiliation/academic rank mentioned earlier. As

Finkelstein (1984, p. 199) noted in his comprehensive review of the faculty development literature, "overall male-female work activity disparity may be a function of the higher concentration of females in the less research-oriented universities and comprehensive colleges". Women and minorities are more likely to be employed at institutions and in positions that emphasize teaching and service--whether through predilection, discrimination or both. One way to begin to disentangle the effects of institutional type and rank from those more directly attributable to gender and race is to examine the experience of faculty in a more homogeneous academic environment, in particular, a doctoral-degree granting institution that selects faculty based largely on their interest and performance in research. Though generalizations based on such a sample would be limited in nature, differences found among white male, white female and minority faculty should provide useful information about race- and gender-based differences among faculty groups facing similar professional demands.

A second issue in assessing current accounts of women and minority faculty is their susceptibility to the stereotypes closely associated with these groups. Etaugh (1984) has shown that people perceive women as less competent than men despite information indicating that work qualifications and background are identical. Furthermore, this gender bias is exacerbated when women are employed in a traditionally male-dominated field. In more real world settings, studies of female and minority professionals and academics document much the same phenomena: stereotypes are so strong that contrary data about work performance and ability are often ignored in the selection and promotion process (Exum, Menges, Watkins & Berglund, 1984; Morrison & Von Glinow, 1990; Reskin, 1980). While there is mounting data in the organizational literature to suggest that women and

minority managers resemble their white male colleagues in terms of aspirations, values, skills, and productivity they fail to be employed in the same numbers or to be promoted to the highest levels of management. There is a persistent tendency to ascribe to women and minorities traits, behaviors, and attitudes that make them inappropriate or deficient as managers --whether it be an enervating conflict between work and family/community life or an irrational 'fear of success'(e.g., see Riger & Galligan, 1980; London & Stumpf, 1986). "To the extent that organizational structures and practices follow models based solely on how white men develop, women and minorities are disadvantaged" (Morrison & Glinow, 1990 p. 203).

Within higher education the effect of racial and gender stereotypes has been noted if not eliminated: "[t]he phenomenon of viewing individual female and minority faculty as representatives of their social categories is a familiar pattern in academe" (Finkelstein, 1984, p. 216). Indeed, given wider social constructions of gender and race, the service and teaching orientation ascribed to women and minorities in higher education seems more than coincidental. The nurturing, interpersonal and practical nature of teaching and service may, in fact, conform most closely to the role interests of women and minority faculty. However, there is also evidence to suggest that women's and minorities participation in these activities may be as much a product of institutional requests as personal proclivities (e.g., Menges & Exum, 1983).

Stereotypes and Social Control

To date, there has been considerable speculation that women and minority faculty may be less successful within academe because of less effective socialization experiences--early socialization, but especially the professional socialization of a top-tier graduate school and

a close working relationship with a mentor who guides and promotes (Exum et al., 1984; Finkelstein, 1984; Justus et al. 1987; Simeone, 1987). However, work by Clark and Corcoran (1986) on the "accumulated disadvantage" suffered by female academics and by Jacobs (1989) on sex segregation within the workplace suggest that some form of social control must be ongoing to maintain differences in performance, opportunities and rewards. In their work, Clark and Corcoran (1986 p. 25) describe a "Salieri effect" whereby women are assessed by a dominant inner circle of men and fail to "measure up" because of their social status. In the end the Salieri effect is perhaps more insidious than overt discrimination because it allows women to enter academe while severely limiting opportunities for advancement. Similarly, investigators describe a kind of "symbolic racism" towards minorities, which denounces overt forms of prejudice while denying access to resources, information, and sources of support (many of which are informal) essential to success (Thomas & Alderfer, 1989; see also Exum et al., 1984).

The literature thus suggests that a closer examination of the professional interests, time allocation and satisfactions of women and minority faculty is warranted. In particular, we need a better understanding of which roles and tasks are truly sought and valued in a context where institutional priorities are both clear and different from those traditionally associated with women and minorities.

Women and Minority Faculty and the Issue of Organizational "Fit"

Having established how female and minority academics perceive themselves professionally, we can then go on to ask how well their values, abilities and goals "fit" the values, needs, and goals of institutions of higher education that employ them. The concept of person-situation fit has been widely applied in organizational settings, defined generally

as the "congruence between norms and values of organizations and the values of persons" (Chatman, 1989 p. 339). According to this definition:

> ...individual values are...enduring beliefs through which a specific mode of conduct or end state is personally preferable to its opposite (Rokeach, 1973). Values are a type of social cognition that facilitate a person's adaptation to his or her environment and values have implications for his or her behavior (cf. Fishbein & Ajzen, 1975; Weiner, 1988). On the organization side, value systems provide an elaborate and generalized justification both for appropriate behaviors of the members and for activities and functions of the system (Enz, 1988; Katz & Kahn, 1978: McCoy, 1985). Norms are closely related to values in that they make explicit the forms of behavior that are appropriate for members of that system (Kilman, Saxton & Serpa, 1985). (Chatman, 1989, p. 339).

Given this general theoretical framework, the concept of 'fit' would appear to be usefully applied to groups such as women and minorities whose professional values (as expressed in their interests, satisfactions and relative expenditure of time) are supposed to vary from the traditional white male model in consistent and predictable ways.

A poor fit between a person and the work environment has consistently been associated with lower job satisfaction and higher rates of turnover (e.g., Caldwell and O'Reilly, 1990; Chatman, 1989; Joyce & Slocum, 1982). Recently, Chatman (1989) has argued that it is the degree of fit with the organization that mediates the relationship between socialization experiences and outcome variables like productivity and satisfaction. Clearly a misfit between an individual and an institution can result from a failure of accommodation on either side. As indicated by the discussion above, however, the situation may also be more complex than a simple mismatch of goals and interests--and, in particular, may be confounded by misperceptions of the individual's professional values and strengths. Furthermore, within academe the importance of the department as well as the overall university as a context for faculty development makes a breakdown of shared values

possible at more than one level.

The Proposed Model

The present study uses LISREL, a structural equations technique similar to path analysis, to examine: (1) the relationship between gender and minority status of faculty at a Research I institution (Carnegie Classification) and professional role interests, work satisfactions, and allocation of work time, (2) the relationship between the professional profile of interests and energies exhibited by women and minorities and perceived fit with institutional priorities, and (3) the relationship of gender, minority status, and institutional fit to job satisfaction (Joreskog & Sorbom, 1984).

The limited empirical information about women and minority faculty at research universities is mixed. Some research suggests that gender and race discrepancies are most acute at such institutions. For example, studies have found an inverse relationship between the prestige of the university and the number and rank of women; substantial inequities in salary; lower research productivity among women faculty; greater voluntary and involuntary turnover; and lower levels of job satisfaction (Finkelstein, 1984; Lomperis, 1990; Rausch et al. 1989). Minority faculty at predominantly white institutions exhibit a similar pattern, although salary levels are generally comparable to white male faculty's (Finkelstein, 1984). As such, findings would seem to provide evidence of women and minority's failure to subscribe to the research ethos of the university--even when that ethos pervades the values and norms of the institution they are employed at. On the other hand, at least one study of minority faculty at a major research university found that minority and majority faculty spend approximately the same amount of time on research and are equally productive (Elmore & Blackburn, 1983). These findings suggest that women and

minorities will more closely approximate a "traditionally male" model when the institution's mission is clear and the hiring process is highly selective.

Recently, Ethington, Smart and Zeltman (1989) found higher levels of job satisfaction among female academics at Research I institutions than among women at lower level research universities. Based on the suggestion that women demonstrate a lower sense of self-efficacy with regard to research (Schoen & Winocur, 1988), Ethington et al. hypothesize that a university's ability to both attract and support the research capabilities of female faculty may be crucial to their professional satisfaction and success.

The work of Ethington et al. and the issue of support is relevant to the present inquiry in two regards. First, their work implies that support and recognition may be particularly important for groups like women and minorities who have traditionally been underrepresented in the academy. While there is evidence to suggest that a lack of institutional support is linked to a higher rate of voluntary turnover among women it is less clear that Research I institutions provide greater support (Rausch et al., 1989). Furthermore, at least one study indicated that minority and women faculty at selective research institutions view their career as the product of their own determination and effort --eschewing the importance of "local" commraderie and support (Exum et al., 1984).

These findings suggest that in addition to interest and relative time investment in research, teaching, and service, faculty's sense of personal control over their career should be assessed to help determine how dependent faculty satisfaction is upon external validation of accomplishments. A related issue is how much intrinsic reward faculty derive from their work. To the extent that women and minority faculty claim significant intrinsic satisfaction from their academic work (regardless of its nature) they should be more

satisfied with their position overall. Numerous studies of faculty job satisfaction have shown the intrinsic rewards of academic work to be the most closely associated with global job satisfaction (e.g., Austin & Gamson, 1983; Bess 1981). In addition, intrinsic and extrinsic rewards tend to be inversely related (Deci & Ryan, 1980; Lepper & Green, 1988; White, 1959). Thus high levels of intrinsic rewards should diminish reliance on external support and recognition.

Moreover, the level of support and recognition an institution provides is itself an indicator of fit. That is, rationally, organizations should reward and support those interests and activities that are consistent with their own values and goals. Academe, in particular, which prides itself on its meritocratic values should certainly adhere to such a model. If, however, phenomena like the Salieri effect or symbolic racism are operational, there may be a failure to support adequately individuals whose work values and efforts are, in the main, congruent with the university's mission.

In the work carried out here, three different sets of outcomes seemed possible: (1) women and minority faculty could exhibit a substantially different pattern of professional role interests, derive different satisfactions, and allocate their work time differently than white male faculty (i.e, emphasizing teaching and service responsibilities), consequently show greater dissonance with institutional criteria and priorities, and receive less university support and recognition. (2) Or, women and minority faculty could closely resemble their white male colleagues, fit well with the values and orientation of a research university and be recognized as doing so. (3) Finally, in a third scenario, women and minority faculty could exhibit a substantial commitment to research, demonstrate no greater commitment to teaching and service than white male faculty but feel a lack of support and recognition

from the university. While intrinsic rewards and a sense of control should exercise positive (direct) effects on job satisfaction, an explicit clash of values with the university, or a perceived lack of support (despite a congruence of goals and values), are likely to negatively affect satisfaction with a faculty position.

Method

Sample

146 tenure-track faculty (11% of all tenure-track faculty at the university) were interviewed and administered a career development questionnaire. The sample was comprised of 42 (29%) white male faculty, 47 (32%) minority faculty, and 57 (39%) white female faculty. White male and female faculty were selected from the larger population using stratified random sampling design. In order to establish a large enough sample, all minority faculty on campus that semester were asked to participate. The response rate for all groups was about 90%. The term minority here refers to faculty from underrepresented minority groups--Afro-American, Hispanic and Native American.

Faculty were drawn from three schools on campus, Arts and Sciences, Business and Education, with samples being matched by discipline within schools. Schools of Education and Business were chosen as fields where women and minorities have traditionally been better and less well represented respectively. With regard to the rank and tenure status of the three groups, minority faculty were the most highly tenured (75%), with 25% at the assistant level, corresponding to the actual rate for minority faculty on campus. Again reflecting levels found in the larger population, women were about 60% tenured with 36% at the assistant level. The matched male sample was similarly 60% tenured, a lower level than the 78% found in the university overall. This sampling strategy was deemed

conservative insofar as the biases in the minority sample (being more male and tenured) should minimize differences with white male faculty and encourage greater identity with the university, its values and standards[1]. Approximately 25% of each subsample was involved in a formal administrative position (e.g., director, chair, dean) controlling for the most obvious differences in service demands by subgroup apriori.

Analysis and Measures

Analysis was carried out using LISREL, a structural equations technique similar to path analysis. LISREL provides a more comprehensive test of a model's empirical adequacy than do ordinary least squares analyses, providing, for example, estimates of unknown coefficients in a set of linear structural equations (Joreskog & Sorbom, 1984). Chi-square statistics for the fit of the entire model and modification indexes allow theoretically sound adjustments to the model to improve fit. Incremental changes to the model are easily evaluated to determine effects on the overall causal structure. Furthermore, it is possible to specify correlations among variables that may be related, but not related causally. Finally, within LISREL, multiple measures can be employed to estimate latent constructs simultaneously within the model (Stage, 1990).

The present model was operationalized using four exogenous variables: gender (0=male,1=female); faculty rank (coded low to high); minority status (0=white, 1=minority); and disciplinary group coded on a 3-point scale adapted from Biglan's hard-soft dimension (1=arts and humanities, 2=social sciences and applied fields, and 3=mathematics and physical sciences).

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[1]Confounds between race and rank were addressed by examining key responses of minority faculty by tenure status. Few differences between tenured and untenured minority faculty were found.

The first block of endogenous variables, representing professional role interests, satisfactions and perceived control over career included: percentage of time spent on research (low to high); percentage of time spent on teaching (low to high); percentage of time spent on service (low to high); overall satisfaction with teaching (scale constructed from four 5-point Likert items, alpha=.69); overall satisfaction with research (scale constructed from four 5-point Likert items, alpha=.79); professional role interests (a 5-point Likert scale item where 1=role interests leaning heavily toward teaching and 5=role interests leaning heavily toward research); perceived control over career (a 5-point Likert scale item with 1=not much control at all and 5=a great deal of control); and satisfaction with intrinsic aspects of faculty work (scale constructed from six 5-point Likert items, alpha=.87). Details of variable construction are provided in Appendix A.

The second block of endogenous variables, representing fit between personal and institutional standards and expectations, included four variables: perceived clarity of criteria for achieving tenure (a 5-point Likert item where 1=tenure criteria are not at all clear and 5=tenure criteria are extremely clear); discrepancy between individuals' ratings of "real" and "ideal" importance of various criteria for tenure (scale constructed from discrepancy scores on ten 5-point Likert items, alpha=.60); satisfaction with perceived recognition and support (constructed from seven 5-point Likert items, alpha=.76); and overall satisfaction with the academic department (scale constructed from three 5-point Likert items, alpha=.67).

The dependent variable, faculty job satisfaction, was identified using four latent constructs widely acknowledged in the job satisfaction literature (Quinn & Staines, 1979): overall satisfaction with the position (scaled from 1=not at all satisfied to 4=very

satisfied); willingness to choose the same position again (recoded to 1=I would not choose the same position to 3=I would choose the same position); willingness to recommend a similar position at the university to others (recoded to 1=I would advise against this position to 3=I would recommend this position); and degree to which the position measured up to the individual's expectations (recoded to 1=it is not at all what I wanted to 3=it is very much what I wanted).

Results

Mean Differences by Exogenous Variables

Preliminary examination of mean differences indicated relatively few differences in role interests, institutional fit, or job satisfaction based on gender or minority status. Women demonstrated greater satisfaction with their department, though interestingly, differences in mean ratings of institutional recognition and support were over a full point lower for women--a difference which, nevertheless, failed to reach significance (Table 1). As predicted by the literature, women did, on average, spend more time teaching and less on -

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Insert Table 1 about here

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research than men but, again, differences were not significant. Minority faculty indicated a greater orientation towards teaching and a somewhat lower likelihood of recommending the position to others or feeling the position was exactly what they expected (job

satisfaction indices)[2] (Table 2). Discipline exercised little effect other than on time

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Insert Table 2 about here

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allocation, with faculty in the hard sciences spending less time on formal teaching (Table 3). Academic rank produced the greatest number of significant between-group differences, replicating the type of developmental changes documented elsewhere in the literature (Baldwin & Blackburn, 1981) (Table 4).

Insert Table 3 and 4 about here

LISREL Model

The model as specified (Figure 1), resulted in a good fit with a chi-square to degrees of freedom ratio of 2.35 (x^2 =220.66, df = 94). Explained variance in job satisfaction was 64.9%. Table 5 provides a full listing of standardized path coefficients for the model[3]. There was a borderline relationship (negative) between gender and time spent on research

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Insert Table 5 about here

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and a highly significant relationship (negative) between gender and perceived recognition

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[2]Additionally, faculty were asked if they would be as likely to recommend their position to a student or colleague if that person were a minority member or female. Approximately 35% of women and minority faculty but only 17% white male faculty said they would be less likely to recommend.

[3]Unstandardized coefficients are given in Appendix B.

and support. Minority status was a highly significant predictor (positive) of identification with the teaching role, satisfaction with teaching, and institutional recognition and support. Of the exogenous variables in the model, rank was most influential, being a significant predictor (negative) of the percentage of time spent on research and teaching as well as a significant predictor (positive) of the percentage of time spent on service, overall satisfaction with teaching, perceived control over one's career, and satisfaction with intrinsic aspects of faculty work. Disciplinary group had a highly significant relationship (positive) with time spent on research and a modestly significant relationship (negative) with time spent teaching. None of the exogenous variables had a significant direct effect on the final dependent variable.

Within the first block of endogenous variables, perceived control over one's career, satisfaction with intrinsic aspects of faculty work, and overall satisfaction with research were most influential in the model. Satisfaction with intrinsic aspects of faculty work was a significant predictor (positive) of satisfaction with the academic department, satisfaction with recognition and support, perceptions that tenure criteria were clear, and the dependent variable job satisfaction[4]. Overall satisfaction with research was a significant predictor (positive) of satisfaction with the academic department and a modestly significant predictor (positive) of perceptions that tenure criteria were clear. Perceived control over the career was a significant predictor (positive) of satisfaction with recognition and support and job satisfaction. Satisfaction with teaching had a highly significant relationship (negative) with perceptions of recognition and support. Time spent on research, teaching,

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[4]Appendix C gives a full listing of direct and indirect effects on job satisfaction.

or service was not a significant predictor of any of the other endogenous variables in the model.

Two variables in the block of personal and institutional fit variables were highly significant predictors (positive) of job satisfaction: perceived recognition and support and overall satisfaction with the academic department.

Summary and Discussion

The present study examined the professional role interests and satisfactions of women and minority faculty at a Research I university, how well their interests and satisfactions "fit" institutional values and expectations, and the effects on job satisfaction. Contrary to current accounts, findings failed to demonstrate a professional bias towards service activities and less personal commitment to research among female and minority academics. Women, in particular, appeared to share with the university values emphasizing research scholarship and publication. The only direct effect of gender on role interests and time allocation was a borderline effect suggesting that women spend slightly less time in research than other faculty. Since expenditure of time may be a product of external constraints as well as internal interest, it is important to note that women, like their white male colleagues, tend to define themselves professionally in terms of their research, derive as much intrinsic reward from their academic work, and are as satisfied with their research activities. There was nothing in the data to indicate that female faculty apportion significantly more time, or demonstrate greater interest than white male faculty in teaching or service.

The pattern of role interests was somewhat different for minority faculty, who

evidenced greater identification with, and satisfaction from, teaching than other groups of faculty. Minorities did not, however, spend more time on teaching, nor did they demonstrate a greater investment in time or interest in service. Research-related variables also indicated comparability among the groups.

For minorities, in particular, the issue of service is significant. A burdensome service load has often been reported for this group due to their high level of responsibility for establishing a more diverse academy. The findings here may thus appear somewhat surprising. However, two other studies also failed to find expected racial differences in percentage of time on service (SRI- UCalif study; Elmore & Blackburn, 1983). One possibility is that minority faculty have learned that demands for service outweigh rewards (particularly in a research institution) and self-consciously limit the time they spend on such activities--nevertheless feeling the press of extensive requests.

In sum, the findings of the present study suggest that current assessments of women and minority faculty's role interests may be a less than accurate characterization. Further, of the different role measures used (identification with teaching/research roles, time allocation and satisfaction), satisfaction with teaching and research proved most predictive of important aspects of institutional fit. "Satisfaction with research" influenced the clarity of tenure criteria and satisfaction with one's academic department. "Satisfaction with teaching", in contrast, exercised a negative impact on recognition and support. Data also indicate, however, that while the role interests of the three groups of faculty appeared more similar than not, in general, role variables were less predictive of "fit" and job satisfaction than a sense of personal control over one's career and intrinsic rewards. Results thus underscore the importance of a sense of autonomy and intrinsic satisfactions

to motivation and success in the academic domain.[5]

The one direct effect that either gender or minority status had on indices of institutional fit was as a significant predictor of university recognition and support--a variable which in turn was highly predictive of job satisfaction. Data thus show that race and gender affect the support faculty receive independent of whether or not their personal professional goals are consonant with institutional values and norms. Surprisingly, however, gender and race effects operated in opposite directions, with women reporting significantly less recognition and support and minority faculty reporting more. These findings are perplexing in light of the fact that the role indices most predictive of institutional fit were "time spent on", and especially "satisfaction with" research, whereas those most predictive of a "misfit" were "time spent on", and "satisfaction with" teaching. Given minority faculty's greater identification with teaching, and the higher level of satisfaction they report from it, one would expect minority status rather than gender to be associated with a disparity with institutional goals and values and to garner less support and reward rather than more.

There would appear to be several possible explanations for this seemingly anomalous set of findings. One possibility is that minority faculty require less support and recognition from the university than white male faculty and women require more. If, for example, female academics feel less efficacious than males, they may rely more heavily on external

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[5] Hackman and Lawler (1971) contrasted groups of professionals who rely on external rewards and are satiated with their attainment with those with work primarily for "higher need satisfaction (e.g., needs for personal growth and development or for feelings of worthwhile accomplishment) on a continuing basis without the strength of desire for additional satisfaction of these needs diminishing. ...continuing (and even increasing) motivation is much more a reality when higher order needs are engaged than is the case with more easily satisfied lower order needs. (1971, p. 262). Along similar lines research has shown that one of the greatest sources of stress for faculty is the high expectations they set for themselves (Gmelch, Lovrich & Wilke, 1984).

validation of their academic contributions. Research, in fact, has found that female graduate students are more sensitive to support features of the environment than males (Hartnett, 1981; Stansbury, 1986). This need may persist over the course of an academic career. However, women in the present study felt as in control of their careers and as able to achieve their professional goals as white male faculty. Furthermore, female faculty, like their male counterparts, enjoyed a high level of intrinsic reward from their academic work. Since intrinsic rewards often diminish the importance of extrinsic ones, findings argue against an unusually high need for recognition among women. Moreover, data on minorities' in predominantly white organizations suggests that they are far from oblivious to issues of support and recognition and their importance for professional success (e.g., recognizing the need to "promote oneself", to be visible in important campus positions (Silver et al., 1988). Though it would not be surprising after years of discrimination if the expectations of minority members were lower.

A second possible explanation is that the differential recognition and support given to women and minorities reflects actual differences in research productivity. Since "percentage of time spent on research" and not actual productivity was measured directly in the present investigation, the possibility of significant between group differences cannot be dismissed. However, two areas investigated as part of the same interview measure can help guide our interpretation. Faculty were asked about current service as grant reviewers, journal editors and referees. To the extent these activities reflect specific research accomplishments (receipt of a research grant by a major funding agency, acceptance of one or more articles by a journal) they may be rough indicators of research stature. An equal proportion of male and female faculty (75%) were involved in reviewing articles and

editing journals, with only somewhat fewer minorities (60%). Approximately 50% of male faculty and 40% of women and minorities currently had grant review responsibilities. Also a campus-based salary chart indicates that even within distinguished rank (academic honors based on research achievement) female faculty receive, on average, $27,000 less than their male colleagues. Combined with the research orientation expressed by women faculty, findings make substantial inequities in scholarly productivity a somewhat less probable explanation of group differences in recognition and support.

Finally, as suggested in the introduction to this paper, it may be that the degree of fit with university values and goals is as much a product of perceptions of fit (influenced by factors like gender and race) as it is a convergence of institutional and individual goals and values. Some of the anecdotes told by women faculty help illustrate situations in which they feel they have been treated differently from their male colleagues despite equivalent abilities and responsibilities. In particular, two anecdotes occurred again and again in interviews with female faculty. With only slight variations, one went something like this: "I was the only woman on the committee. I proposed my idea and it was as if I had never said anything, the discussion continued on unabated. Then, a while later one of the male faculty made the same suggestion I did. All of a sudden the idea was heard and could be discussed". What was particularly troubling to women about vignettes such as the one above, was not so much that their proposal had been discounted, but that when the same idea was presented by a male faculty it was recognized and valued.

A number of faculty also indicated that as a woman, it was "dangerous" to appear too committed to teaching, since it would be assumed that teaching would preempt research. For example, one pretenure woman reported that despite a well-received book and over a

dozen research articles in top-tier journals she was viewed by her department as marginal in research and strong in teaching. As part of her teaching credentials she had published a number of articles on the pedagogy of her field. During an annual review, she was told explicitly that she would have been "better off" if she had not written the articles on teaching, "because they indicate you could have done a whole lot more research". This faculty went on to say, "I have male colleagues with no publications held up to me as a paradigm. I feel devalued as a junior faculty and devalued as a women. ... I deserve more than the marginal feedback I have received". Another woman, reported a similar incident, "I won a teaching award, which then made people say she's a teacher not a researcher--because they didn't know my research ... . There were rumors that I would be fired except that all of the women couldn't leave at once (the other woman was leaving). I heard this through a candidate who interviewed here--and it was totally untrue, so untrue it was ridiculous". Unwilling to fight the teaching persona the department had ascribed to her, this faculty simply left to assume a position at another research university.

The thread running through many of the stories that women told was a sense of disconnectedness. Frequently female faculty were not invited to go out to lunch or drinks after work, or included in other important venues for informal communication. With many of the informal networks precluded, women have greater difficulty in acquiring information about the department and informing the department about their own activities, research in particular. Without accurate information, the individual is likely to be less attuned to departmental politics, needs, and goals, while the department and institution, in turn, are likely to make judgments based on limited data and to rely more heavily (if unconsciously)

on preconceptions and stereotypes[6].

While the effect of race was more salutary, it still argues that irrelevant criteria may be entering into decisions about rewards and support. Undoubtedly some of the greater recognition perceived by minority faculty reflects the heightened concern higher education has demonstrated in the past several years to establish a more racially and ethnically diverse academy. A reaffirmation of the value of a diverse faculty may have enhanced appreciation of the relatively few minority members on campus (approximately 4% of all faculty or 54 individuals). In addition, the contrast between the goals of diversity and the reality of minority representation in faculty ranks may have encouraged greater recognition of minorities--i.e., as a way of both obfuscating the current gap between rhetoric and reality as well as encouraging greater representation in the future. A second contributing factor may have been that the minority sample was largely male. The data on minority males and organizational support appears, however, to be more similar to that for white women than for white men (Thomas & Alderfer, 1989). Another factor to be considered is that about one third of minority faculty were in the departments of Afro-American Studies and Spanish. In the present case, a substantial proportion of the minority faculty may have been in a work environment with enough other minorities that they experienced fewer of the social and professional barriers that minority members typically face when they are clearly "tokens".

What the findings of this study appear to indicate then is that professional role

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[6]There was a curious bias throughout the interviews, with women and minority faculty identifying the university and even other departments as discriminatory, but not their own. It would be helpful to better understand what factors or mechanisms (e.g., cognitive dissonance) shape these perceptions.

satisfactions, particularly in the area of research, are an important but not final arbiter of institutional fit in a Research I university. Factors such as race and gender affect important aspects of how faculty are perceived and rewarded. Furthermore, examination of the link between the different measures of fit used in the present study and job satisfaction suggest that institutional support and the relationship with one's department, the work context, is more predictive of job satisfaction than abstract agreement with institutional standards. In other words, faculty and university may share a similar set of values but these values must be instantiated in a work setting which supports and promotes them on more concrete, interpersonal basis to engender satisfaction.

Findings also indicated that a sense of personal control over one's career and the intrinsic satisfactions of academic work exercise a significant direct influence on job satisfaction. Data thus replicate the findings of an extensive literature documenting the importance of intrinsic rewards to faculty job satisfaction. The present work adds to this the significance of being self-determining, not simply in the sense of control over a particular research project or content of a class, but over the course of a faculty career. Moreover, unexpectedly, sense of control and intrinsic rewards were associated with positive assessments of departmental colleagues and chair and institutional recognition and support which, again, were highly predictive of overall satisfaction. The more general literature on sense of personal control suggests that a high level is associated with a more active, problem-solving orientation, more positive affect and better coping skills (e.g., Folkman, 1984; O'Brien, 1984; Strickland, 1978). Intrinsic rewards also exercise beneficial effects on motivation and problem-solving. Further research is needed to determine whether characteristics associated with these variables may make the individual more

productive, more persistent and/or more adaptable--facilitating acceptance and recognition at the department and university level.

Statement of Limitations

The present study has several limitations: (1) Data is based on self-report. (2) The sample is highly selective and generalizes at most to other Research I universities. (3) The minority faculty sample was overrepresented at higher ranks--we were thus more likely to be interviewing the "survivors", faculty who had been able to meet and exceed university expectations and to identify with them. Despite these limitations, however, the research here suggests that at least some women and minority faculty subscribe to the professional values and goals of a research institution and derive substantial intrinsic satisfaction from their academic career so defined. More research is needed to determine the unique effects of race and gender on institutional recognition, and to explore the institutional and intrapsychic factors (e.g., sense of control) that may help moderate negative effects of a lack of recognition and support on job satisfaction.

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Table 1

Mean Ratings of Role Variables, Institutional Fit, and Job Satisfaction Indices by Gender

	Male		Female				
	Mean	Std.	Mean	Std.	df	F	sig.[a]
Time spent on research	39.06	16.17	34.69	19.01	1	2.14	
Time spent on teaching	33.99	13.75	37.71	16.21	1	2.15	
Time spent on service	26.99	20.05	27.09	21.52	1	0.00	
Satisfaction with teaching	16.18	2.27	15.93	2.39	1	0.40	
Satisfaction with research	14.37	3.26	15.10	2.88	1	1.94	
Professional role interests	3.73	1.24	3.49	1.32	1	1.28	
Perceived control over career	3.99	1.02	4.14	1.04	1	0.75	
Satisfaction with intrinsic aspects of work	22.49	4.65	23.48	4.77	1	1.38	
Perceived clearness of tenure criteria	2.98	0.98	3.21	0.93	1	1.85	
Discrepancy between real and ideal criteria for tenure	0.81	0.39	0.81	0.42	1	0.00	
Recognition and support	23.70	5.06	22.49	5.33	1	1.57	
Satisfaction with academic department	10.61	2.36	11.48	2.20	1	4.48	**
Job satisfaction	3.22	0.78	3.38	0.73	1	1.44	
Would do again	2.59	0.56	2.58	0.63	1	0.01	
Recommend job to others	2.57	0.59	2.67	0.54	1	1.01	
Job what I expected	2.34	0.54	2.39	0.52	1	0.32	

[a]Significance based on one-way analysis of variance. * $p < .10$ ** $p < .05$ *** $p < .01$

Table 2

Mean Ratings of Role Variables, Institutional Fit, and Job Satisfaction Indices by Minority Status

	White		Minority				
	Mean	Std.	Mean	Std.	df	F	sig.[a]
Time spent on research	38.00	18.19	34.13	16.81	1	1.45	
Time spent on teaching	36.88	15.88	33.94	13.43	1	1.17	
Time spent on service	25.84	21.29	29.64	19.55	1	1.03	
Satisfaction with teaching	15.52	2.32	17.21	1.91	1	17.39	***
Satisfaction with research	14.66	3.08	14.90	3.14	1	0.17	
Professional role interests	3.76	1.26	3.27	1.27	1	4.67	**
Perceived control over career	3.98	1.05	4.24	0.97	1	2.00	
Satisfaction with intrinsic aspects of work	23.25	4.66	22.54	4.88	1	0.63	
Perceived clearness of tenure criteria	3.05	0.99	3.21	0.90	1	0.81	
Discrepancy between real and ideal criteria for tenure	0.79	0.43	0.86	0.36	1	0.84	
Recognition and support	22.74	4.85	23.73	5.96	1	0.91	
Satisfaction with academic department	10.94	2.26	11.26	2.48	1	0.45	
Job satisfaction	3.27	0.78	3.36	0.70	1	0.42	
Would do again	2.60	0.62	2.55	0.55	1	0.24	
Recommend job to others	2.68	0.52	2.50	0.64	1	2.86	*
Job what I expected	2.43	0.54	2.26	0.49	1	2.71	*

[a]Significance based on one-way analysis of variance. * $p < .10$ ** $p < .05$ *** $p < .01$

Table 3

Mean Ratings of Role Variables, Institutional Fit, and Job Satisfaction Indices by Disciplinary Groupings

	Arts/Humanities		Social/Prof		Hard Science				
	Mean	Std.	Mean	Std.	Mean	Std.	df	F	sig.[a]
Time spent on research	32.49	16.01	36.39	18.96	48.25	12.81	2	5.89	**
Time spent on teaching	39.34	16.33	34.47	15.03	34.00	12.01	2	1.70	
Time spent on service	27.96	19.83	28.86	22.64	17.50	12.59	2	2.48	*
Satisfaction with teaching	16.46	2.18	15.93	2.46	15.33	2.09	2	1.70	
Satisfaction with research	14.88	3.22	14.65	3.01	14.47	3.08	2	0.14	
Professional role interests	3.48	1.09	3.47	1.38	4.30	1.13	2	3.70	*
Perceived control over career	3.98	1.19	4.10	0.97	4.15	0.88	2	0.27	
Satisfaction with intrinsic aspects of work	22.71	4.67	23.23	5.00	22.73	3.84	2	0.18	
Perceived clearness of tenure criteria	3.30	0.85	2.98	1.06	3.00	0.86	2	1.71	
Discrepancy between real and ideal criteria for tenure	0.82	0.46	0.83	0.35	0.73	0.46	2	0.52	
Recognition and support	22.12	5.70	23.66	4.95	22.93	4.85	2	1.07	
Satisfaction with academic department	11.43	2.00	11.03	2.25	10.00	2.96	2	2.60	*
Job satisfaction	3.32	0.78	3.29	0.76	3.27	0.70	2	0.03	
Would do again	2.55	0.60	2.58	0.63	2.67	0.49	2	0.20	
Recommend job to others	2.62	0.61	2.62	0.55	2.64	0.50	2	0.01	
Job what I expected	2.38	0.54	2.33	0.53	2.46	0.52	2	0.59	

[a]Significance based on one-way analysis of variance. * $p < .10$ ** $p < .05$ *** $p < .01$

Table 4

Mean Ratings of Role Variables, Institutional Fit, and Job Satisfaction Indices by Rank

	Convert. Lect.		Asst. Prof.		Assoc. Prof.		Full Prof.				
	Mean	Std.	Mean	Std.	Mean	Std.	Mean	Std.	df	F	sig.[a]
Time spent on research	90.00	0.00	42.11	18.28	34.80	14.61	32.13	18.19	3	6.06	***
Time spent on teaching	10.00	0.00	40.11	15.36	36.73	14.15	30.98	14.76	3	3.84	***
Time spent on service	0.00	0.00	17.62	15.41	28.58	19.93	35.98	22.79	3	7.10	***
Satisfaction with teaching	14.00	0.00	15.43	2.34	16.00	2.28	16.89	2.19	3	3.11	***
Satisfaction with research			14.53	3.23	14.58	2.94	15.18	3.15	2	0.56	
Professional role interests	1.00	0.00	3.85	1.28	3.56	1.23	3.44	1.29	3	2.23	*
Perceived control over career	5.00	0.00	3.64	1.10	4.13	1.01	4.41	0.84	3	4.77	***
Satisfaction with intrinsic aspects of work			21.86	5.85	22.87	3.85	24.58	3.84	2	3.41	**
Perceived clearness of tenure criteria			2.96	0.84	3.15	1.02	3.21	1.02	2	0.84	
Discrepancy between real and ideal criteria for tenure			0.90	0.44	0.85	0.41	0.65	0.32	2	4.12	*
Recognition and support			20.95	5.74	22.83	5.21	25.51	3.44	2	8.22	***
Satisfaction with academic department	12.00	0.00	10.79	2.37	11.12	2.38	11.19	2.20	3	0.28	
Job satisfaction	3.00	0.00	3.07	0.85	3.33	0.73	3.55	0.60	3	3.00	**
Would do again	2.00	0.00	2.52	0.66	2.60	0.53	2.66	0.58	3	0.67	
Recommend job to others	2.00	0.00	2.55	0.63	2.64	0.53	2.71	0.52	3	0.97	
Job what I expected	2.00	0.00	2.37	0.62	2.38	0.49	2.37	0.49	3	0.17	

[a]Significance based on one-way analysis of variance. * $p < .10$ ** $p < .05$ *** $p < .01$

Table 5

Standardized Path Coefficients

Independent Variable	Dependent Variable: Time spent on research	Time spent on teaching	Time spent on service	Satisfaction with teaching	Satisfaction with research	Professional role interests
Gender	-0.148*	0.085	0.037	0.010	0.130	-0.126
Minority Status	-0.026	-0.083	0.007	0.284***	0.035	-0.163*
Rank	-0.275***	-0.182**	0.362***	0.203**	0.084	-0.072
Discipline	0.243***	-0.160*	-0.107	-0.086	-0.029	0.123
Time spent on research	0.000	0.000	0.000	0.000	0.000	0.000
Time spent on teaching	0.000	0.000	0.000	0.000	0.000	0.000
Time spent on service	0.000	0.000	0.000	0.000	0.000	0.000
Satisfaction with teaching	0.000	0.000	0.000	0.000	0.000	0.000
Satisfaction with research	0.000	0.000	0.000	0.000	0.000	0.000
Professional role interests	0.000	0.000	0.000	0.000	0.000	0.000
Perceived control over career	0.000	0.000	0.000	0.000	0.000	0.000
Satisfaction with intrinsic aspects of work	0.000	0.000	0.000	0.000	0.000	0.000
Perceived clearness of tenure criteria	0.000	0.000	0.000	0.000	0.000	0.000
Discrepancy between real and ideal criteria for tenure	0.000	0.000	0.000	0.000	0.000	0.000
Recognition and support	0.000	0.000	0.000	0.000	0.000	0.000
Satisfaction with academic department	0.000	0.000	0.000	0.000	0.000	0.000

* $p \leq .10$ ** $p \leq .05$ *** $p \leq .01$

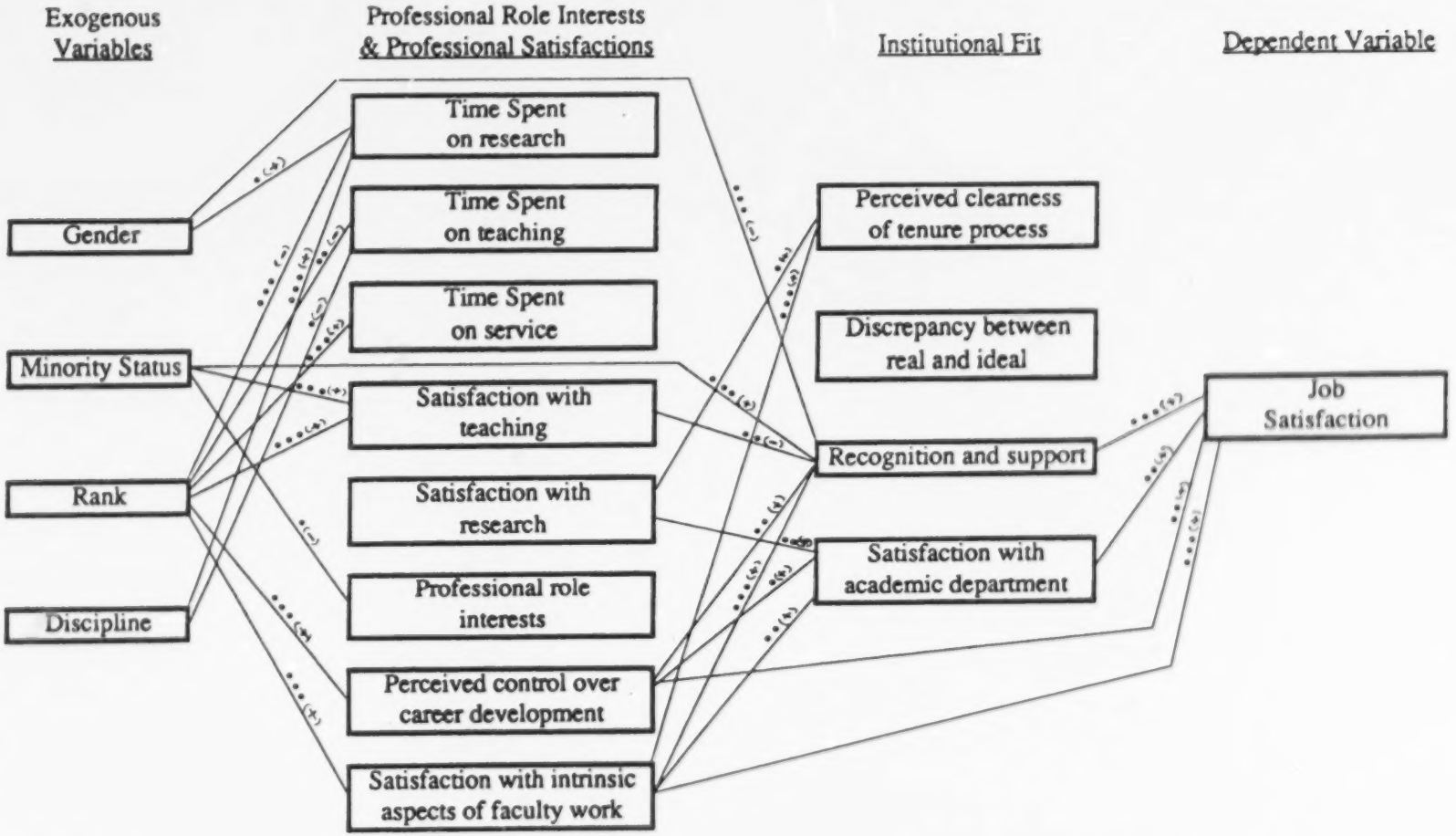
cont.

Table 5. Standardized Path Coefficients (cont.)

Independent Variable	Dependent Variable: Perceived control over career	Satisfaction with intrinsic aspects	Perceived clearness of tenure criteria	Discrepency between real and ideal criteria	Recognition and support	Satisfaction with department	Job satisfaction
Gender	0.124	0.120	0.000	0.000	-0.197***	0.000	0.000
Minority Status	0.117	-0.094	0.000	0.000	0.188***	0.000	0.000
Rank	0.266***	0.262***	0.000	0.000	0.000	0.000	0.000
Discipline	0.100	0.014	0.000	0.000	0.000	0.000	0.000
Time spent on research	0.000	0.000	-0.085	-0.198	0.021	-0.051	0.000
Time spent on teaching	0.000	0.000	0.018	0.202	-0.058	-0.093	0.000
Time spent on service	0.000	0.000	-0.256	-0.039	0.095	-0.005	0.000
Satisfaction with teaching	0.000	0.000	-0.026	-0.038	-0.199**	-0.055	0.000
Satisfaction with research	0.000	0.000	0.155*	0.106	0.042	0.218**	0.000
Professional role interests	0.000	0.000	0.043	-0.131	0.096	0.015	0.000
Perceived control over career	0.000	0.000	0.021	-0.074	0.132**	0.149*	0.146**
Satisfaction with intrinsic aspects of work	0.000	0.000	0.336***	-0.091	0.673***	0.232**	0.302***
Perceived clearness of tenure criteria	0.000	0.000	0.000	0.000	0.000	0.000	0.095
Discrepency between real and ideal criteria for tenure	0.000	0.000	0.000	0.000	0.000	0.000	0.045
Recognition and support	0.000	0.000	0.000	0.000	0.000	0.000	0.392***
Satisfaction with academic department	0.000	0.000	0.000	0.000	0.000	0.000	0.188**

* $p \leq .10$ ** $p \leq .05$ *** $p \leq .01$

Figure 1. A Structural Model Examining the Effect of Professional Role Interests, Professional Satisfactions, Work Time Allocation, and Institutional Fit on Women and Minority Faculty Job Satisfaction



$x^2 = 220.66$
$R^2 = .649$ df = 94

• $p \leq .10$, •• $p \leq .05$, ••• $p \leq .01$

Appendix A

Table A-1 **Definitions of Variables**

Variable	Description
Gender	0=male 1=female
Rank	0=instructor 1=assistant professor 2=associate professor 3=full professor
Minority status	0=white 1=minority
Disciplinary group	Based on Biglan's hard/soft dimension: 1=arts and humanities 2=social sciences and applied fields 3=mathematics and physical sciences
Percentage of time spent on research	"Overall, what percentage of your time do you spend on research?".
Percentage of time spent on teaching	"Overall, what percentage of your time do you spend on teaching?".
Percentage of time spent on service	"Overall, what percentage of your time do you spend on service?".
Satisfaction with teaching	Constructed from four 5-point Likert items where: 1=not at all satisfied 3=moderately satisfied 5=extremely satisfied. Alpha=.69 How satisfied are you with: your classroom teaching skills? your knowledge, content expertise? your time management (related to teaching)? your readiness for teaching assignments?

Satisfaction with research	Constructed from four 5-point Likert items where: 1=not at all satisfied 3=moderately satisfied 5=extremely satisfied. Alpha=.79 How satisfied are you with: the direction and focus of your research? the quality of your research publications? the amount of research you carry out? the amount of research you publish?
Professional role interests	"On balance, how would you characterize your professional interests at present - equally divided between research and teaching or inclining more towards one than another?". 1=heavily toward teaching 2=both, lean to teaching 3=equal and complimentary 4=both, lean to research 5=heavily toward research
Perceived control over career	"Overall, how much control would you say you have over your career at the present time? 1=not much at all 2=a little 3=different amounts at different times 4=some 5=a great deal
Satisfaction with intrinsic aspects of faculty work	Constructed from six 5-point Likert items where? 1=not at all satisfied 3=moderately satisfied 5=extremely satisfied. Alpha=.87 "How satisfied are you with each of the following aspects of work life": sense of personal autonomy? opportunity to use your skills and abilities? sense of accomplishment? opportunity for continued learning? opportunity to have a significant impact on others? progress toward your own professional goals?

Perceived clearness of tenure criteria

"Do you feel that you have/had a clear sense of what you have/had to do to be recommended for tenure?".

1=not at all clear
2=somewhat clear
3=clear
4=extremely clear

Discrepancy between real and ideal criteria for tenure

Constructed from ten 5-point Likert items asking respondents to rank the "real" and "ideal" importance of various criteria for tenure where:

1=not at all important
3=moderately important
5=extremely important
Alpha=.76

Criteria:
getting along with colleagues
publications
gender
obtaining outside funds
adequacy in teaching
personality
department/university service
professional instincts
lifestyle
ethnicity

Recognition and support

Constructed from seven 5-point Likert items where:

1=not at all satisfied
3=moderately satisfied
5=extremely satisfied.
Alpha=.76

"How satisfied are you with each of the following aspects of work life":

recognition for your work within the university?
feedback about your work?
job security?
support from the administration?
support for scholarship?
support for teaching/advising?

Satisfaction with department	Constructed from three 5-point Likert items where: 1=not satisfied at all 3=moderately satisfied 5=extremely satisfied Alpha=.67 How satisfied are you with: the support of your department chair? the quality of your colleagues? the quality of your/departmental graduate students?
Job satisfaction	Identified using four latent constructs: All things considered, how satisfied are you with your position? 1=not at all satisfied 2=not too satisfied 3=somewhat satisfied 4=very satisfied Knowing what you know now, if you had to decide all over again whether to choose the position you now have, what would you decide? 1=I would not choose the same position 2=I would have some second thoughts 3=I would choose the same position If a student or colleague told you that he or she is interested in seeking a position like yours at this university, what would you say? 1=I would advise against this position 2=I would have some doubts 3=I would recommend this position In general, how well would you say that your position measures up to the sort of position you wanted when you started it? 1=it is not at all what I wanted 2=It is something like what I wanted, but not completely 3=It is very much what I wanted

Appendix B

Table B-1 Unstandardized Path Coefficients

	Dependent Variable					
Independent Variable	Time spent on research	Time spent on teaching	Time spent on service	Satisfaction with teaching	Satisfaction with research	Professional role interests
Gender	-5.207*	2.576	1.536	0.045	0.820	-0.317
Minority Status	-0.961	-2.674	0.304	1.408***	0.235	-0.438*
Rank	-6.082***	-3.469**	9.440***	0.593**	0.333	-0.113
Discipline	6.414***	-3.624*	-3.328	-0.298	-0.138	0.233
Time spent on research	0.000	0.000	0.000	0.000	0.000	0.000
Time spent on teaching	0.000	0.000	0.000	0.000	0.000	0.000
Time spent on service	0.000	0.000	0.000	0.000	0.000	0.000
Satisfaction with teaching	0.000	0.000	0.000	0.000	0.000	0.000
Satisfaction with research	0.000	0.000	0.000	0.000	0.000	0.000
Professional role interests	0.000	0.000	0.000	0.000	0.000	0.000
Perceived control over career	0.000	0.000	0.000	0.000	0.000	0.000
Satisfaction with intrinsic aspects of work	0.000	0.000	0.000	0.000	0.000	0.000
Perceived clearness of tenure criteria	0.000	0.000	0.000	0.000	0.000	0.000
Discrepancy between real and ideal criteria for tenure	0.000	0.000	0.000	0.000	0.000	0.000
Recognition and support	0.000	0.000	0.000	0.000	0.000	0.000
Satisfaction with academic department	0.000	0.000	0.000	0.000	0.000	0.000

* $p \leq .10$ ** $p \leq .05$ *** $p \leq .01$

cont.

Table B-1 Unstandardized Path Coefficients (cont.)

Independent Variable	Dependent Variable: Perceived control over career	Satisfaction with intrinsic aspects	Perceived clearness of tenure criteria	Discrepency between real and ideal criteria	Recognition and support	Satisfaction with department	Job satisfaction
Gender	0.254	1.108	0.000	0.000	-2.064***	0.000	0.000
Minority Status	0.256	-0.929	0.000	0.000	2.103***	0.000	0.000
Rank	0.345***	1.518***	0.000	0.000	0.000	0.000	0.000
Discipline	0.154	0.094	0.000	0.000	0.000	0.000	0.000
Time spent on research	0.000	0.000	-0.005	-0.005	0.006	-0.007	0.000
Time spent on teaching	0.000	0.000	0.001	0.005	-0.020	-0.014	0.000
Time spent on service	0.000	0.000	-0.012	-0.001	0.024	-0.001	0.000
Satisfaction with teaching	0.000	0.000	-0.011	-0.007	-0.448**	-0.055	0.000
Satisfaction with research	0.000	0.000	0.047*	0.014	0.070	0.161**	0.000
Professional role interests	0.000	0.000	0.033	-0.043	0.401	0.027	0.000
Perceived control over career	0.000	0.000	0.020	-0.030	0.675**	0.337*	0.087**
Satisfaction with intrinsic aspects of work	0.000	0.000	0.069***	-0.008	0.765***	0.117**	0.040***
Perceived clearness of tenure criteria	0.000	0.000	0.000	0.000	0.000	0.000	0.061
Discrepency between real and ideal criteria for tenure	0.000	0.000	0.000	0.000	0.000	0.000	0.066
Recognition and support	0.000	0.000	0.000	0.000	0.000	0.000	0.046***
Satisfaction with academic department	0.000	0.000	0.000	0.000	0.000	0.000	0.049**

* $p \leq .10$ ** $p \leq .05$ *** $p \leq .01$

Appendix C

Table C-1 Direct, Indirect and Total Effects on Job Satisfaction

	Direct	Indirect	Total
Gender	0.000	0.039	0.039
Minority Status	0.000	0.017	0.017
Rank	0.000	0.174	0.174
Discipline	0.000	0.037	0.037
Time spent on research	0.000	-0.001	-0.001
Time spent on teaching	0.000	-0.001	-0.001
Time spent on service	0.000	0.000	0.000
Satisfaction with teaching	0.000	-0.024	-0.024
Satisfaction with research	0.000	0.015	0.015
Professional role interests	0.000	0.019	0.019
Perceived control over career	0.087	0.047	0.134
Satisfaction with intrinsic aspects of work	0.040	0.045	0.085
Perceived clearness of tenure criteria	0.061	0.000	0.061
Discrepancy between real and ideal criteria for tenure	0.066	0.000	0.066
Recognition and support	0.046	0.000	0.046
Satisfaction with academic department	0.049	0.000	0.049